

November 2, 2006

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DEPARTMENT OF ECOLOGY
NOV 03 2006
WATER QUALITY PROGRAM

Subject: Comments on Pre-Preliminary Draft Industrial Stormwater General Permit

Dear Nancy and Jim:

Weyerhaeuser Company comments on the October 2006 Pre-Preliminary Draft of the Industrial Stormwater General Permit (hereafter, "the Draft ISWGP") are presented in this letter.

1. **Complexity.** The Draft ISWGP is too complicated. The permit specifies over 100 mandatory obligations for a permittee to adequately accomplish (and routinely update) to maintain literal compliance with its terms and conditions. This seems too intensive for a general permit and it seems inevitable that most permittees will have on-going deficiencies against some permit requirement. NPDES permit non-compliance is subject to government and citizen enforcement, with the result possibly being civil and criminal sanctions.

The Department of Ecology has discretion on the form and content of this permit. We note that the Oregon Department of Environmental Quality recently renewed its industrial stormwater general permit. It covers the same set of commercial/industrial facilities as Washington's ISWGP and implements the same basic Clean Water Act requirements. Oregon's permit is 27 pages long; Washington's will approach 70 pages. Note also the obligation in the Washington permit that permittees "shall refer to" and be "consistent with" the *Western Washington (or Eastern Washington) Stormwater Management Manual(s)* in the selection of BMPs. This linkage adds 100's of pages as effective permit language.

While there is much inertia behind the current permit format, Ecology is nevertheless encouraged to examine how the next generation ISWGP can be simplified. Desirable features would include: 1) a more concise permit with many fewer mandatory actions ("the critical, not the trivial"), and 2) clear

articulation of the specific actions (not the regulatory process) required to attain and maintain permit compliance

2. **The turbidity, total zinc, total copper, total lead, and BOD adaptive management parameters, and their benchmark values and action levels, should be re-evaluated.** There are better choices which are more relevant for assessing BMP performance and the anticipated environmental impact of stormwater on receiving water quality.
 - In the Response to Comments developed for the 2002 ISWGP issuance Ecology promised to evaluate the appropriateness of benchmark parameters and levels in the 2007 renewal permit. There is no indication in this Draft ISWGP or the accompanying Fact Sheet that Ecology considered changes. At this point the agency appears locked-in on the choices made in 2002 for fear that any change will be contentious. The better choice will be to sponsor a critical discussion on the merits of other adaptive management parameters and trigger levels.
 - Turbidity - comments have been offered to the agency on the merits of using either total suspended solids or settleable solids as a superior measure of BMP performance for the control of solids in stormwater. Separately, the ISWGP 25 NTU benchmark level is inconsistent with other Ecology permitting decisions. As displayed on the attached page, Ecology has routinely determined that 50 NTU is AKART for a variety of recently issued permits. The rationale to ultimately require the imposition of "all" or "any" operational source control and treatment BMPs, when stormwater turbidity values are in the 26-50 NTU range (as the current ISWGP and this pre-preliminary ISWGP does), is lacking.
 - Total zinc, total copper, total lead – A review of the 2004 CWA Section 303(d) list suggests there are very few waterbody segments in the state that exceed acute or chronic numeric criteria for these metals; i.e., less than a dozen for each metal and most of these are of the chronic criterion. Despite the lack of evidence that dissolved metals in Washington waterbodies constitutes a problem, the Draft ISWGP is poised to quickly force the majority of permittees into an ever more expensive effort to control total metals. Two suggestions are offered. First, Ecology should task its Environmental Assessment Program to characterize dissolved metals levels in Washington waters. Clean metals sampling techniques should be used. It would better to understand the nature and scope of this water quality concern before perpetuating and expanding a permitting program meant to address it. Second, a more efficient approach to address total metals would be to focus on solids removal from stormwater. The choice of total suspended solids or settleable solids as an indicator of BMP performance (with an appropriate benchmark value) would be an adequate

surrogate for total metals, and would simplify permit implementation for permittees.

- The BOD benchmark value assigned to the wood products industry (30 mg/l) references to EPA's determination of a satisfactory secondary treatment system performance level. Ecology's 2002 ISWGP accepted EPA's reasoning on the choice of BOD as a monitored benchmark without critical review. The Draft ISWGP perpetuates this same approach. As suggested previously, this is the time for Ecology to examine the appropriateness of BOD as the adaptive management parameter, and to fully evaluate the reasonableness of benchmark value and action levels for the industry. We suggest that a BOD benchmark at 30 mg/l is not reasonable given the traditional and necessary raw material storage/handling practices in the industry in Western Washington.

3. The Draft ISWGP treats benchmark values as de facto effluent limitations.

As structured in the Draft ISWGP benchmark values serve as the "bright line" defining acceptable and unacceptable pollutant discharges. The inability to achieve a benchmark concentration for each sampling event has ratcheting consequences. Ultimately, the permit requires "all" and "any" BMPs to be employed, engineering reports prepared, etc., should benchmark values not be consistently achieved. The permit structure and use of permit language demanding actions, supports the view that benchmark values effectively serve as effluent limitations. RCW 90.48.555(3) allows for numeric effluent limitations to be established but only after consideration of the factors specified in subsection RCW 90.48.555(4). These factors have not been formally considered in the selection of benchmark values.

Draft ISWGP language expressing the role of benchmarks as de facto effluent limitations is found at:

- S3.A.9.c. - "Ecology may require additional BMPs where the Permittee exceeds benchmark values."
- S3.B.3.e.iii.1. - "The Permittee shall implement treatment BMPs when operational source control BMPs do not adequately reduce pollutants below the benchmark."
- S8.A.1 - Level One response requires identification of "any additional operational source control BMPs that could reduce stormwater contamination. S8.A.2. "Within 30 days after receipt of sampling results exceeding the benchmark, ..., implement the additional ... BMPs identified ..."
- S8.B.2. - Level Two response requires that "all available options of capital BMPs and operational source control BMPs (will be implemented) to reduce stormwater contaminant levels to or below benchmark values."
- S8.C.2. and 3. - Level Three response requires "Investigate all available stormwater capital BMPs and operational source control BMPs. (and

treatment BMPs)...to reduce stormwater contamination levels to below benchmark values.” Submit to Ecology for review and approval, then implement.

- S8.D.1.a. - Level Four response requires “Prepare an engineering report...the report shall include and AKART analysis to reduce concentrations for the pollutant of concern below benchmark values. Submit to Ecology for review and approval, then implement.
4. **The language in the Draft ISWGP requiring “any additional” or “all available” BMPs, or that the permittee will “Fully implement(s) stormwater BMPs contained in stormwater management manuals...,” exceeds statutory authority.** (See the use of language throughout S8 *Corrective Actions* and S10.C 2. *Compliance with Standards*.) RCW 90.48.555(6)(b) specifies implementation of “all applicable and appropriate” best management practices. The expectations or practical distinctions between these phrases could be significant. The language used in the Draft ISWGP should mimic that used in the statute.
 5. **An annual geometric mean of monitoring data, not individual sampling events, should be used to trigger Level Two, Level Three and Level Four adaptive management actions.** High variability could be expected from single sample analyses of stormwater samples. These results may be less related to BMP performance and more determined by such factors as storm event intensity, time lapse of sampling the storm event, various aspects of the sampling protocol, etc. The Washington legislature recognized the inherent variability of stormwater discharge quality and instructed Ecology to take account of that (RCW 90.48.555(4)(b)).
 6. **The next ISWGP should include an option to directly assess compliance with water quality standards.** This would serve as an “off-ramp” to the Level Two, Level Three and Level Four adaptive management activities. At some point permittees will conclude that “all applicable and appropriate” BMPs are being employed. This set of BMPs may not produce stormwater quality below benchmark value concentrations. Prior to being forced into the Levels Two, Three and Four adaptive management processes a permittee should have an opportunity to assess or demonstrate whether water quality standards are, in fact, being achieved. The next ISWGP should make provision for this demonstration.
 7. **Consistent with RCW 90.48.555(4)(a) and (12), and subject to conditions presented in WAC 173-201A-400, the next ISWGP should specifically identify that a mixing zone can be authorized for stormwater discharges.**
 8. **The Dispute Resolution section (which appears as Special Condition S13 in the current ISWGP) should be retained in the next ISWGP.** Disagreements can be expected to occur in the implementation of the ISWGP. It serves both Department of Ecology and permittee interests if an issue can be resolved short of

an appeal action to the Pollution Control Hearings Board. Identifying a Dispute Resolution opportunity, with appropriate language in the permit, will preserve that ability.

Ecology is to be commended for starting the permit renewal process early and for allowing public input on this pre-preliminary draft permit. Several of the Weyerhaeuser comments have requested that Ecology conduct a more thorough evaluation of available information and then consider alternative permitting choices. Time exists for Ecology to do this. Our request is to have a more formal opportunity to meet with agency staff to discuss these options. It would be appropriate to broaden any event to include other wood products industry permittees. I would appreciate a response to this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Ken Johnson". The signature is fluid and cursive, with the first name "Ken" being more prominent than the last name "Johnson".

Ken Johnson
Regulatory Affairs Manager

TURBIDITY

Sand & Gravel General Permit (modified May 17, 2006)

- 50 NTU identified as AKART

Construction Stormwater General Permit (issued November 16, 2005)

- 25 NTU is Benchmark Value
- 26-250 NTU = review SWPPP and revise within 7 days; implement fix within 10 days

Individual Construction Stormwater Permits

Issaquah Highlands (WA-003188-7, issued 11/1/05, amended 6/23/06)

- 50 NTU if non-chemical treatment is AKART
- 5 NTU if chemical treatment or electrocoagulation
- <5NTU increase over background if background <50 NTU, or 10%

Brightwater Wastewater Treatment Plant (WA-003204-2, issued 3/17/06, amended 8/23/06)

- 50 NTU if non-chemical treatment is AKART
- 5 NTU if chemical treatment or electrocoagulation
- <5NTU increase over background if background <50 NTU, or 10%

Quadrant Skagit Highlands (WA-003195-0, issued 4/1/03, draft amendment now)

- <5NTU increase over background if background <50 NTU, or 10%

Redmond Ridge East (WA-003208-5, issued 7/15/05)

- 50 NTU if non-chemical treatment is AKART
- 10 NTU if chemical treatment or electrocoagulation
- <5NTU increase over background if background <50 NTU, or 10%

Central Puget Sound Transit Authority (WA-003192-5, issued 1/1/03, draft amendment now)

- <5NTU increase over background if background <50 NTU, or 10%

Quadrant Snoqualmie Ridge II (WA-003201-8, issued 12/1/04)

- 50 NTU if non-chemical treatment is AKART
- <5NTU increase over background if background <50 NTU, or 10%

Port of Seattle, SeaTac International Airport (WA-002465-1, issued 9/4/03, amended 10/7/05)

- <5NTU increase over background if background <50 NTU, or 10%

Weyerhaeuser Analytical and Testing Services
 32901 Weyerhaeuser Way South
 Federal Way, Washington 98001

Service Request 06-2584
 WA Cert# C1219

Report

Raymond Stormwater Monitoring - September 2006 - Permit

Sample Designation	Lab ID	Turbidity NTU	BOD mg/L	O&G mg/L
Outfall 001 @ manhole	09/19/06 0820 001	240	4	< 5.0
	001D	240	---	---
O&G Blank				< 5.0

Analysis Date: 09/20/06 09/20/06 10/02/06
 Method used : AM E-180 1 AM S-5210 AM E-1664A
 QL : --- 4 5.0
 Analyst: SH JC SH

Sample Designation	Lab ID	Cu ug/L	Pb ug/L	Zn ug/L	Hardness mg equivalent CaCO ₃ /L
Outfall 001 @ manhole	09/19/06 0820 001	16.1	0.8	38	487

Analysis Date: 09/29/06 09/29/06 09/29/06
 Method used : E-200 8M E-200 8M E-200 8M
 QL : 0.5 0.5 1
 Analyst: DJK DJK DJK

Approved: Maxine Ranta
 Telephone: 253-924-6149

Date: 10/05/06

Weyerhaeuser Analytical and Testing Services
32901 Weyerhaeuser Way South
Federal Way, Washington 98001

Service Request 06-0314
WA Cert# C1219

Report

Log Sort Yard

Aberdeen Bay City Stormwater - 1st Quarter - January 2006 - Permit

Sample Designation		Lab ID	Turbidity NTU	BOD mg/L	O&G mg/L	Total Metals	
						Zn µg/L	
Outfall #2	01/25/06	1315	001	43	13	< 5.0	<10
			001D	43	14		---
O&G Blank				---	---	< 5.0	---
			Analysis Date:	01/26/06	01/27/06	02/03/06	02/09/06
			QL :	---	4	5.0	10
			Method used :	AM E-180 1	SM 5210	AM E-1664A	E-3010/ E-200.7
			Analyst:	SH	CJ	SH	ES

Approved: Maxine Ranta
Telephone: 253-924-6149

Date: 2/15/2006

Report

Aberdeen Bay City Stormwater - 1st Quarter - March 2005 - Permit

Sample Designation			Lab ID	Turbidity NTU	BOD mg/L	O&G mg/L	Total Metals Zn µg/L
Outfall 002	03/16/05	1025	001	310	< 3	6.2	40
			001D	—	< 3	—	—
O&G Blank						< 5.0	
Analysis Date:				03/17/05	03/17/05	03/21/05	03/21/05
QL :				—	3	5.0	10
Method used :				AM E-180.1	SM 5210	AM E-1664A	E-3010/ E-200.7
Analyst:				MR	DT	SH	ES



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DEPARTMENT OF ECOLOGY

NOV 0 6 2006

WATER QUALITY PROGRAM

November 2, 2006

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Subject: Supplemental Comments on the Pre-Preliminary Draft Industrial Stormwater General Permit

Dear Nancy and Jim:

I had intended to include this March 2006 letter with the Weyerhaeuser Company letter on this subject dated November 1.

Sincerely,

Ken Johnson
Washington Regulatory Affairs Manager



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DEPARTMENT OF ECOLOGY

NOV 06 2006

WATER QUALITY PROGRAM

March 14, 2006

Jim LaSpina
Pat Brommer
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P.O. Box 47600
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Subject: Renewal of Industrial Stormwater General NPDES Permit,
Benchmark Values for Timber Products Industry, Paper and Allied Products

Dear Mr. LaSpina and Ms. Brommer:

This letter is to request consideration of changed benchmark values for turbidity and biological oxygen demand, to apply to Industrial Stormwater General Permit (ISWGP)-permitted facilities in the Timber Products industry.

Background

The regulatory concept of using surrogate pollution parameters and concentration levels as indicators of BMP effectiveness and water quality standards compliance first appeared in Washington's 2002 ISWGP renewal. These surrogate parameters/concentrations, referred to as "benchmark values," were based on regulatory policy and data evaluation work completed by the EPA in the mid-1990's. EPA's methodology in selecting the appropriate parameters and benchmark values for various industry sectors is described in the Fact Sheet (and earlier in the permit Development Document) for their 1995 Multi-Sector General Stormwater Permit¹ and then again in the Fact Sheet for their 2000 Multi-Sector General Stormwater Permit renewal²

The Department of Ecology accepted and included EPA's benchmark values for pH, total zinc, petroleum - oil & grease, biological oxygen demand, and other parameters in the 2002 ISWGP renewal. Ecology chose not to use EPA's preferred parameter for judging solids discharges (i.e., total suspended solids), and instead opted for turbidity. The explanation for this choice is provided in the Fact Sheet to the 2002 ISWGP³ renewal.

¹ 60 FR 50825, September 29, 1995

² 65 FR 64767-64769, October 30, 2000

³ "Fact Sheet for Industrial Stormwater General Permit - Summary," undated, pages 34, 79-80.

Basis for Current Request

Various stakeholders commenting on the 2002 ISWGP renewal had questions or were critical of several benchmark parameters and values incorporated in the permit. Amongst the complaints were that turbidity would not necessarily be a good measure of BMP effectiveness and that the value of 25 NTU was unrealistically low. The BOD value was criticized as being too low. Ecology responded with an immediate explanation for the choice of the parameters and values, and then offered that

Response: ...Except for the turbidity benchmark value, all the values are from the EPA multi-sector general permit. Ecology will not consider any revision of these values now but will reconsider them when the permit is reissued in 5 years. The data collected under this permit may provide the basis for such consideration.

Response: ...Ecology will reassess the use of benchmarks and the values used during the next permit cycle. The data gathered under this permit will be part of this assessment.

(Note: Both references are from pages 79-80 of "Fact Sheet for Industrial Stormwater General Permit – Summary," undated.)

In summary, the Department of Ecology committed to a data-based review on the appropriateness of the benchmark parameters and values, to occur in conjunction with the 2007 permit renewal.

Specific Requests

1. The agency should task EnviroVision/Herrera to segregate 2003-2005 stormwater monitoring data submitted by permitted facilities in the Timber Products sector. An evaluation of performance and trends against the turbidity and BOD benchmark values should be completed.
2. Ecology should consider replacing the benchmark based on the turbidity parameter, with total suspended solids at 130 mg/l. There are good regulatory and technical arguments in support of this change which could be more fully developed. In short, however, the requested benchmark change would:
 - assess solids discharges with the parameter traditionally used in the NPDES program and for which much regulatory and technical information exists,
 - yield monitoring data which is more meaningful for assessing the performance of treatment BMPs (which typically are based on gravimetric settling),
 - produce monitoring data which could be used to conduct loading analyses to receiving waters,

- conform the benchmark to the parameter (TSS) and value (130 mg/l) proposed by the State of Oregon⁴. Oregon's analysis of stormwater monitoring data should be relevant and credible with Ecology, and
- conform the benchmark to the parameter traditionally used by EPA in their MSGP. That said, EPA's benchmark value of 100 mg/l was derived from the National Urban Runoff Program studies in the early 1980's⁵. It does not represent industrial stormwater discharges but rather "typical" urban runoff, generally from paved and impervious surfaces. The TSS benchmark at 100 mg/l may or may not have current relevance to AKART-level performance from industrial facilities.

While Ecology has historically favored turbidity as the benchmark parameter, its practical use as an indicator of BMP performance, water quality impairment or as a surrogate of pollutant discharges is limited. Technical support for this assertion can be developed.

If a shift to TSS as the benchmark parameter is not possible, Ecology should consider a significant increase in the turbidity benchmark value and/or change in the evaluation of monitoring data to trigger an adaptive management response. For example, Oregon is considering a turbidity benchmark value of 160 NTU, in part based on assumption of receiving water conditions and available dilutions⁶. Other Washington general NPDES permits have established 50 NTU turbidity as an AKART value. If turbidity at 50 NTU is AKART, any benchmark value below that value is overly stringent. Finally, EPA's proposed 2006 renewal of the MSGP sets a 50 NTU benchmark for some industry sectors but triggers the evaluation of improved or additional BMPs to the average of four quarterly discharge samples exceeding this 50 NTU benchmark. Each of these alternatives is preferable to the current 25 NTU benchmark value coupled with a single-sample trigger for an adaptive management response. Regulatory policy and technical support could be developed for any of these options.

3. Ecology should consider raising the BOD benchmark value to at least 100 mg/l, or substitute Chemical Oxygen Demand and develop an appropriate benchmark value. The basis for EPA's benchmark value for BOD of 30 mg/l is the "Secondary Treatment Regulations (40 CFR 133)"⁷. While it was convenient for Ecology to incorporate this benchmark parameter and value for Timber Products in 2002, it was, in reality, totally arbitrary. EPA recognizes that wood products manufacturing operations will contribute organic pollutants to

⁴Oregon's *NPDES General Permits 1200-A 1200-Z and 1200 COLS Renewal Evaluation Report*, February 28, 2006, page 13, states: "The total suspended solids (TSS) benchmark was based on a best management practice approach since there is no TSS water quality standard. Available guidance on the effectiveness of storm water treatment practices indicates that when properly implemented and maintained these practices can generally reduce TSS concentrations by 80%. Using this information, the department applied the 80% reduction to the 95th percentile of TSS data submitted by permittees (640 mg/l) during the first permit cycle."

⁵ *Stormwater Multi-Sector General Stormwater Permit for Industrial Activities*. Environmental Protection Agency, footnote 7 to Table 3. 65 FR 64767, October 30, 2000.

⁶Oregon's *NPDES General Permits 1200-A 1200-Z and 1200 COLS Renewal Evaluation Report*, February 28, 2006, see pages 10-11 for a discussion.

⁷ *Stormwater Multi-Sector General Stormwater Permit for Industrial Activities*. Environmental Protection Agency, footnote 4 to Table 3. 65 FR 64767, October 30, 2000.

stormwater. EPA has selected COD as the Timber Products industry sector benchmark parameter and at a value of 120 mg/l

Why These Requests are Important

1. Timber Products manufacturing is a prominent industry in Washington. At 127 reporting facilities it is apparently the largest single industry sector authorized by the ISWGP program. The sector is assumed to be a significant contributor of stormwater pollutants. It is one of only two industry sectors for which Ecology has developed a sector-specific BMP manual⁸. Ecology has funded a special monitoring study of log storage yards stormwater⁹. This history of regulatory attention now supports a sector-specific evaluation of stormwater monitoring data.
2. Ecology was justified in 2002 to accept EPA's technical rationale for establishing benchmark values or, in the case of turbidity, to base a benchmark on a parameter for which a state water quality numeric criteria existed. To its credit, the agency acknowledged in the 2002 ISWGP comment response that these benchmark parameters and values might need adjustment once monitoring data was collected and evaluated. The Washington legislature's crafting of ESSB 6415 reflects this same understanding. This legislation directed an adaptive management approach. Based on knowledge gained through permit implementation and a "monitoring effectiveness" study, the clear directive is to work toward a permit with "appropriate monitoring, evaluation and reporting." Aggressive, yet reasonable, benchmark parameters and levels are at the heart of this matter.
3. A frank discussion on appropriate benchmark parameters and values should occur in this permit cycle. Timber Products facility operations may be unique in the ability to produce an elevated level of organics and solids in stormwater runoff; i.e., long-term storage of a large mass of logs, heavy equipment transport of logs, steady exposure to precipitation. Benchmark parameters and values should be selected such that AKART BMPs for the sector will satisfy ISWGP requirements. Inappropriate benchmark parameters and/or values will create a frustrating do-loop of Level 1, 2 and 3 responses, and stigmatize the industry.

Thank you for your consideration of these requests. I would welcome the opportunity to discuss these requests and ideas in more detail. Feel free to contact me if there is interest in this.

Sincerely,

Ken Johnson
Washington Regulatory Affairs Manager

⁸ *Best Management Practices to Prevent Stormwater Pollution at Log Sort Yards*, Washington Dept of Ecology, revised in May 2004

⁹ *Stormwater Quality Survey of Western Washington Log Yards*, Washington Dept of Ecology, October 2004